

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243055

Luminaire Tested: **S121RDR-H305D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243055  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121RDR-H305D840-X4F0-XX-UDD-F-W  
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 927.7 lumens  
Efficiency: N/A  
Efficacy: 82.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct

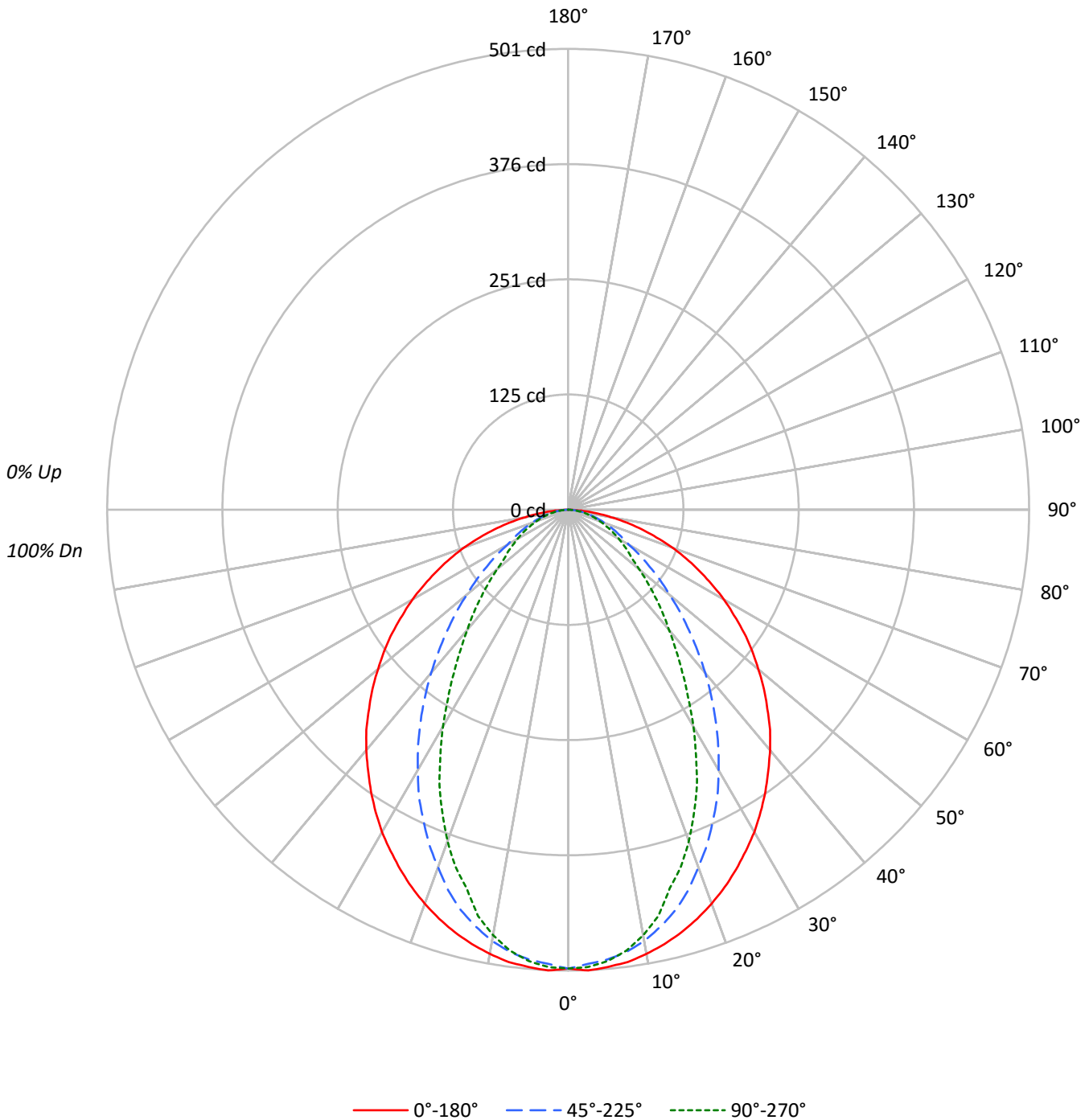
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14782	14782	14782
5°	14839	14598	14648
10°	14755	14321	14132
15°	14589	13825	13071
20°	14369	13038	12089
25°	14110	12178	10821
30°	13843	11181	9316
35°	13517	10106	7831
40°	13197	8962	6591
45°	12826	7777	5581
50°	12432	6624	4637
55°	12057	5589	4127
60°	11597	4533	3781
65°	11028	4059	3470
70°	10439	3665	3188
75°	9536	3286	2908
80°	8156	2884	2594
85°	6323	2448	2142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.7	5.0
10°-20°	126.9	13.7
20°-30°	173.2	18.7
30°-40°	179.6	19.4
40°-50°	156.7	16.9
50°-60°	117.9	12.7
60°-70°	77.3	8.3
70°-80°	39.4	4.2
80°-90°	10.0	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	346.9	37.4
0°-40°	526.4	56.7
0°-60°	801.0	86.3
0°-90°	927.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	927.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	499	499	499	499	499	
5°	499	496	491	494	492	47
15°	476	469	451	438	426	134
25°	432	414	372	341	331	199
35°	374	342	279	232	216	234
45°	306	262	186	144	133	236
55°	233	178	108	82	80	208
65°	157	98	58	51	50	156
75°	83	38	29	26	25	88
85°	19	8	7	6	6	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	498.9	498.9	498.9	498.9	498.9
2.5°	501.4	499.3	494.2	498.4	497.6
5°	498.9	496.3	490.8	493.8	492.5
7.5°	495.9	492.5	484.9	486.2	483.6
10°	490.4	486.2	476.0	473.5	469.7
12.5°	483.6	479.0	464.2	458.3	452.4
15°	475.6	468.8	450.7	438.0	426.1
17.5°	466.3	457.9	433.8	416.0	407.1
20°	455.7	444.7	413.5	392.7	383.4
22.5°	444.3	430.4	394.4	368.2	357.2
25°	431.6	413.9	372.5	341.2	331.0
27.5°	418.1	397.8	351.3	315.4	300.6
30°	404.6	379.2	326.8	286.6	272.3
32.5°	389.4	360.6	303.5	259.2	243.1
35°	373.7	341.6	279.4	232.5	216.5
37.5°	357.2	322.6	255.3	208.0	192.4
40°	341.2	301.9	231.7	184.3	170.4
42.5°	324.7	281.1	208.0	163.6	151.8
45°	306.1	261.7	185.6	144.2	133.2
47.5°	288.7	240.6	165.3	126.8	116.7
50°	269.7	219.8	143.7	110.8	100.6
52.5°	252.0	198.7	126.0	93.9	87.5
55°	233.4	177.6	108.2	82.0	79.9
57.5°	213.5	156.8	92.6	73.6	71.0
60°	195.7	137.0	76.5	66.0	63.8
62.5°	175.9	117.1	66.4	58.8	56.7
65°	157.3	98.1	57.9	51.2	49.5
67.5°	138.7	80.7	49.9	44.4	42.7
70°	120.5	64.3	42.3	38.0	36.8
72.5°	100.6	48.6	35.5	32.1	31.3
75°	83.3	38.0	28.7	26.2	25.4
77.5°	65.1	28.7	22.4	20.7	20.3
80°	47.8	20.7	16.9	15.6	15.2
82.5°	32.6	14.0	11.8	11.0	10.6
85°	18.6	7.6	7.2	6.3	6.3
87.5°	7.2	3.0	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)